

The Burden of Diarrheal Illness in FoodNet, 2002-2003

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Background: An estimated 76 million foodborne illnesses occur annually in the US. The CDC's Foodborne Disease Active Surveillance Network (FoodNet) conducts periodic surveys of the population to determine the prevalence of diarrheal illness, and frequency at which persons with diarrhea seek medical care and submit stool specimens.

Methods: The 12-month FoodNet population survey was an extensive questionnaire administered by telephone to residents of all or part of nine states (population 37.6 million) using standard random-digit dialing methodology. The survey ascertained demographic, health and food consumption information. Participants were asked about illness and activities in the month prior to interview. We defined acute diarrheal illness as ≥ 3 loose stools in 24 hours with impairment of daily activities or duration of diarrhea >1 day.

Results: Of 16,435 persons interviewed, 6910 (42%) were male; the median age was 43 years. Of the 15,578 respondents who denied a chronic gastrointestinal disease, 798 (5%) reported an acute diarrheal illness during the month prior to interview. The prevalence of illness was highest (9%) among children < 5 years of age and lowest (3%) among those ≥ 65 years of age. Slightly more females (5%) reported acute diarrheal illness than males (4%). The prevalence of illness was similar among education and residence setting groups. Prevalence in non-Hispanic white respondents was 5% compared to 3% in non-Hispanic blacks ($p = 0.003$). Those with an acute diarrheal illness reported missing a median of 2 days of work or school due to that illness; 31 (4%) reported blood in their stool and 150 (19%) sought medical care. Of those seeking medical care 29 (19%) were asked to submit a stool specimen, and 29 (19%) were prescribed antimicrobials for their illness. Of the 28 who submitted stool samples, 10 (36%) were prescribed antimicrobials.

Conclusions: One in twenty persons experience an acute diarrheal illness each month. However, less than one in five ill persons sought medical care and less than one in five who seeks care submitted a stool specimen. These data suggest that well over 28 cases of acute diarrheal illness occur in the population for each stool specimen tested for enteric pathogens.